

# Article 4. Buffers, Landscaping and Tree Conservation

Effective January 1, 2009, as Amended through November 18, 2014

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## Article 4. Buffers, Landscaping and Tree Conservation

Effective January 1, 2009, as Amended through November 18, 2014

The purpose of this Article is to improve the aesthetic qualities of the County and to protect and preserve the appearance, character and value of its neighborhoods and business areas by:

- (1) Providing for the separation of incompatible types of land use.
- (2) Providing for quality and consistency in the design of landscaping and screening.
- (3) Providing for the conservation of existing trees and the planting of new trees in pace with the land development process.

### Sec. 401. Definitions related to landscaping and buffers.

*Buffer, Zoning:* A zoning buffer is an area of natural vegetation or man-made construction that is intended to provide a visual and dimensional separation between dissimilar land uses. In contrast, see "Buffer, Stream."

- a. *Natural Buffer:* A visual screen created by vegetation of such density so as to present an opaque visual separation when viewed from one side to the other throughout the year.
- b. *Structural Buffer:* A visual screen created through construction of a solid wooden fence, decorative masonry wall, earthen berm, or combination of fence or wall with an earthen berm, which may be supplemented with vegetation, so as to present an opaque visual separation when viewed from one side to the other throughout the year.

*Caliper:* The diameter of a tree (usually nursery stock) measured at a point 6 inches above the ground or top of root ball for up to and including 4-inch caliper trees, and at a point 12 inches above the ground or top of root ball for larger sizes.

*Common Open Space:* See "Open Space."

*Dead Tree or Plant:* Any plant that is not otherwise in a seasonally dormant state, and either: 1) shows no sign of life, or 2) has lost 33% or more of its branches or vegetation during normal periods of growth.

*Deciduous:* A plant with foliage that is shed annually.

*Diameter Breast Height (DBH):* The diameter of an existing tree trunk measured at a height of 4½ feet above the ground. If a tree splits into multiple trunks below 4½ feet, the trunk is measured at its most narrow point beneath the split.

*Drip Line:* A perimeter formed by the points farthest away from the trunk of a tree where precipitation falling from the branches of that tree lands on the ground.

*Evergreen:* A plant with foliage that persists and remains green year-round.

*Heavily Landscaped Area:* An area planted with a combination of shade and flowering trees, deciduous and evergreen shrubs, and flowering perennials such that the entire area is covered with landscape materials. The green space designated to be heavily landscaped shall have no more than 25% of its area covered in turf (seed or sod). The remaining 75% shall contain shade trees (2 inch caliper minimum), flowering trees (1 inch caliper minimum), evergreen shrubs (3 gallon minimum), deciduous shrubs (3 gallon minimum), and perennials or non-turf groundcovers (2½ inch pot minimum). All plant materials shall be mulched.

*Landscape Materials:* Any combination of living plant materials and nonliving materials such as rocks, pebbles, wood chips, mulch and pavers, and decorative features, including sculpture, patterned

walks, fountains, and pools. Synthetic landscaping materials acceptable to the Planning Director may also be used.

*Mulch:* Pine straw, pine bark, pebbles, lava rock or synthetic landscaping materials acceptable to the Planning Director.

*Natural Buffer:* See under “Buffer, Landscape.”

*Opaque:* Impenetrable to view, or so obscuring to view that features, buildings, structures and uses become visually indistinguishable.

*Open Space:* An area of land or water that is permanently set aside through dedication, designation or reservation to remain in a natural and unimproved state or that may be improved only for active or passive recreation or enjoyment. Open space can be defined as:

- a. *Common Open Space:* Land or water areas within a development project that are available to or benefit all occupants of the development on a continuing and permanent basis, such as walking trails, community centers or clubhouses, golf courses and other recreation areas, protected flood plains or wetlands, and fishing or boating lakes. Common open space does not include any streets or public or private rights-of-way, or yard areas or landscape areas located on private property.
- b. *Public Open Space:* Land reserved for preservation, leisure or recreational use but dedicated in fee simple to a governing body or public agency to be responsible for operation and maintenance. Public open space may not be reserved for or dedicated to the exclusive use of the residents of a particular development.
- c. *Greenspace:* Permanently protected areas of a site that are preserved in a natural state.

*Shrub:* A self-supporting woody plant that normally reaches a height of less than 15 feet.

*Structural Buffer:* See under “Buffer, Landscape.”

*Tree:* A large, woody plant that has one or several self-supporting stems or trunks and numerous branches, and that normally reaches a height of 15 feet or more. May be classified as deciduous or evergreen.

*Tree Harvesting:* The planting, cultivating and harvesting of trees in a continuous cycle as a regular agricultural practice on a tract of land; not including the removal of trees for purposes of development or the removal of trees without replanting.

*Tree, Shade:* A broadleaf deciduous tree that has a single trunk and which will reach at least 35 feet in height and 35 feet in spread at maturity. In defining such trees, reference may be made to the latest editions of *Landscape Plant Materials for Georgia* (Cooperative Extension Service, The University of Georgia College of Agriculture, Bulletin No. 625) and the *Manual of Woody Landscape Plants* (Michael Dirr, 1983, Castle Books).

*Visual Screen:* Natural vegetation or a decorative structure that creates an opaque visual block or obscures an unattractive view.

*Zoning Buffer:* See “Buffer, Zoning.”

## **DIVISION 1. ZONING BUFFERS.**

### **Sec. 402. Buffer strips.**

[Amended April 6, 2010]

Any multi-family use, office or institutional use, commercial use or industrial use, off-street loading areas, or off street parking areas for five or more automobiles shall be separated from adjoining agricultural and residential property by a continuous buffer strip as required by this Division.

(a) **Zoning buffers; where required.**

Except between individual uses within a Planned Development zoned PD, buffers must be provided as follows:

- (1) On a property to be used for any multi-family use (duplexes, townhouses, apartments or mobile home park), a buffer must be provided along a side or rear lot line in accordance with Table 4.1 that abuts any agricultural zoning district or agricultural use; any single-family use or zoning district; any single-family, recreational or open space area within a PD; and any area shown as Rural, Rural Residential or Residential on the Future Land Use map.
- (2) On a property to be used for any office, institutional or commercial use, a buffer must be provided along a side or rear lot line in accordance with Table 4.1 that abuts any agricultural zoning district or agricultural use; any single-family or multi-family use or zoning district; any single-family, multi-family, recreational or open space area within a PD; and any area shown as Rural, Rural Residential, Residential, Multi-Family or Mixed Use on the Future Land Use map.
- (3) On a property to be used for any industrial use, a buffer must be provided along a side or rear lot line in accordance with Table 4.1 that abuts any agricultural zoning district or agricultural use; any single-family or multi-family use or zoning district; any single-family, multi-family, recreational or open space area within a PD; and any area shown as Rural, Rural Residential, Residential, Multi-Family or Mixed Use on the Future Land Use map.
- (4) Where multiple uses or uncertainty exist, the buffer requiring the greatest width shall apply.

(b) **Zoning buffers; timing of installation.**

Buffers are required to be created at the time of construction of any infrastructure or new development of a building or site.

**Sec. 403. Zoning buffer standards.**

(a) **General.**

- (1) Buffer areas shall contain no driveways, access easements, parking areas, patios, storm water detention facilities, or any other structures or accessory uses except for a fence, wall or earthen berm constructed to provide the visual screening required to meet the standards of this Development Code.
- (2) Underground utilities including closed storm drains may be permitted to cross perpendicular to a buffer if the screening standards of this Development Code will be subsequently achieved.
- (3) Vehicular access through a buffer may be allowed only as a condition of rezoning, Special Use or Planned Development zoning approval by the Board of Commissioners.

(b) **Width of buffer.**

Buffers required along any lot line shall be no less than the minimum required width as shown on Table 4.1, or as may be reduced under Sec. 405.

Table 4.1: Situations Where Buffer Required					
	① Provide a buffer on the lot of this use ↓                      ↓                      ↓                      ↓                      ↓				
② Along a side or rear lot line next to this use or zoning ↓	Single-Family Residence	Multi-Family	Office or Institutional	Commercial	Industrial
A-F or A-R Agricultural or vacant land, or Active Agricultural use in any zoning district <sup>1</sup>	N/A	15 feet	15 feet	15 feet	15 feet
Single-Family Residential <sup>2</sup>	None	25 feet	25 feet	50 feet	100 feet
Multi-Family Residential <sup>3</sup>	None	None	25 feet	25 feet	50 feet
Office, Institutional, Commercial or Industrial <sup>4</sup>	None	None	None	None	None
<sup>1</sup> Includes any vacant land zoned A-F or A-R; any land in agricultural use in any zoning district, including land under forestry management; and any land shown on the Future Land Use map as Rural or Rural Residential. <sup>2</sup> Includes any land zoned R-1; any existing single-family residential use zoned A-F, A-R or R-2; any land zoned PD and in use or planned for single-family residential, recreational or open space use; and any land shown on the Future Land Use map as Residential. <sup>3</sup> Includes any land zoned MHP; any land zoned R-2 or R-3 not used for a single-family residence; any land zoned PD and in use or planned for multi-family residential use; and any land shown on the Future Land Use map as Multi-Family. <sup>4</sup> Includes any existing nonresidential use in any zoning district; any land zoned PD and in use or planned for any nonresidential use; and any land shown on the Future Land Use map as Commercial, Industrial or Public/Institutional.					

[Table 4.1 amended April 6, 2010]

(c) **Minimum required screening.**

A required zoning buffer must create a barrier that substantially blocks the sight lines, noise transmission, and the transfer of artificial light and reflected light up to a height of no less than 6 feet at the property line (or such greater height as required by conditions of zoning approval on a particular property).

(d) **Natural buffers.**

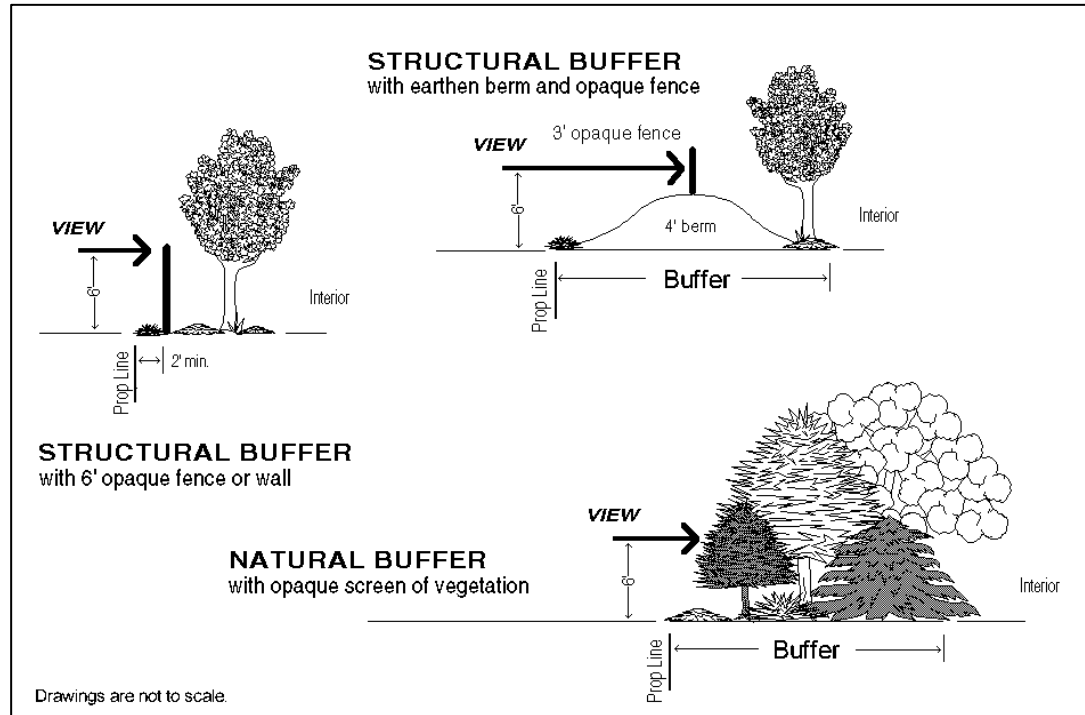
Natural buffers shall be composed of healthy plants which possess growth characteristics of such a nature as to produce a dense, compact visual screen not less than six feet in height. Natural buffers may contain deciduous or perennial vegetation, but shall contain existing or planted evergreen shrubs and trees suitable to local growing conditions that will provide an opaque visual screen during all seasons of the year.

(e) **Structural buffers.**

A structural buffer shall provide a continuous visual screen throughout its entire length, and may consist of any combination of the following, as approved by the Planning Director: Opaque fencing constructed of cedar, redwood, treated and stained or painted wood, vinyl replicating wood, or other suitable all-weather material; masonry walls of brick or stone; concrete block walls treated with a decorative finish; planted or natural vegetation; or earthen berms. Structural buffers shall meet the following criteria:

- (1) Structural buffers shall be vegetated throughout the minimum area required for the buffer around any fences or walls and upon any earthen berms, which may include ground covers, shrubs and trees.
- (2) All earthen berms shall have a maximum side slope of 50% (1 foot of vertical rise to 2 feet of horizontal run). Earthen berms shall not be constructed within the drip line of any existing trees that will remain on the property; new trees that overhang the berm may be planted after the berm is constructed.
- (3) Trees shall be located or planted within any structural buffer at a density of no less than one tree for each 25 feet of buffer length or portion thereof. New deciduous trees shall have a caliper of no less than 2 inches upon planting, and new evergreens shall be at least 6 feet tall when planted.
- (4) Fences and freestanding walls shall present a finished and decorative appearance to the abutting property, and shall be located no closer to the property line than 2 feet. Shrubs, ground covers, or other vegetation shall be provided between the fence or wall and the property line so as to provide a decorative effect, following professional landscaping standards for spacing, location and design.

- (5) Examples of buffers are shown in the following illustration:



#### Sec. 404. Maintenance of buffers.

Every buffer required under this Division shall be maintained by the owner of the property where the buffer is located, so as to provide an opaque visual screen to a height of 6 feet on a continuous, year-round basis. Dead or dying plants or trees must be replaced immediately with the same or an equivalent species.

#### Sec. 405. Reduction for unnecessary buffers.

[Amended April 6, 2010]

##### (a) Current necessity for a zoning buffer.

The Board of Commissioners may, through approval of a special exception variance, reduce a zoning buffer requirement to a temporarily appropriate level of screening if the Future Land Use map anticipates future development on the adjoining property in a land use category such that a zoning buffer would not be required by this Code once the adjoining property is rezoned or developed. Such determination shall be based on:

- (1) The Future Land Use map as most recently adopted or amended under this Development Code;
- (2) Surrounding land use and zoning patterns; and
- (3) The propriety of a future zoning change on the adjoining property.

##### (b) Level of screening.

In determining the temporary level of screening appropriate in an individual case, the following factors will be considered:

- (1) Whether the adjacent property is vacant or developed.



- a. If the adjacent property is developed, the nature of the existing use and the extent to which the proposed use on the subject property will be incompatible.
  - b. If the adjacent property is vacant, the probability that the adjacent property will be used as currently zoned in the future (whether temporarily or permanently) or rezoned to a district consistent with the Future Land Use map.
- (2) The demonstrated imminence of rezoning or development of the adjacent property in a manner consistent with the Future Land Use map.
- (3) The appropriate conditions under which the temporary zoning buffer requirement no longer will be required.

## **DIVISION 2. LANDSCAPING.**

### **Sec. 406. Frontage landscape strips.**

When required under this Development Code or as a condition of zoning approval, frontage landscape strips shall meet or exceed the standards of this Section.

(a) **Frontage landscape strips; where required.**

- (1) Single-family subdivisions and lots are exempt from the requirements of this Sec. 406.
- (2) All multi-family projects to be developed in the R-2 and R-3 zoning districts, and all property to be developed in the MHP, commercial and industrial zoning districts, shall provide and maintain a continuous 10-foot wide frontage landscape strip adjacent to all street rights-of-way. This landscaping area shall be landscaped in accordance with the requirements of this Section. The location and detail of all required landscaping shall be depicted on the site landscaping plan required under Sec. 420.

(b) **Location of structures in frontage landscape strip.**

If a frontage landscape strip is required, it shall contain no structures, parking areas, patios, storm-water detention facilities or any other accessory uses except for the following:

- (1) Retaining walls or earthen berms constructed as part of an overall landscape design.
- (2) Pedestrian-oriented facilities such as sidewalks.
- (3) Underground utilities and fire hydrants.
- (4) Driveways required to access the property.
- (5) Signs otherwise permitted by this Code.

(c) **Landscaping required in frontage landscape strips.**

- (1) All portions of a required frontage landscape strip shall be planted in trees, shrubs, grass or ground cover, except for those ground areas that are covered by permitted structures.
- (2) Shrubs are to be provided within the frontage landscape strip at the rate of 10 shrubs for every 35 linear feet of street frontage, or portion thereof (excluding driveways). Shrubs must be at least 18 inches tall at the time of planting, and be certified by a registered Landscape Architect to be of a species that will normally exceed 2 feet in height at maturity.
- (3) Trees shall be provided within the frontage landscape strip at the rate of one tree for every 35 linear feet of street frontage, or portion thereof (excluding driveways). Such trees must be of a type that is suitable to local growing conditions.

- (4) Upon planting, new deciduous trees shall have a caliper of no less than 2 inches and new ever-green trees shall be at least 6 feet tall.
- (5) New trees and shrubs may be clustered for decorative effect following professional landscaping standards for spacing, location and design.
- (6) Trees and shrubs in the frontage landscape strip are not to extend into the street right-of-way, nor interfere with the sight visibility requirements of this Development Code.
- (7) Trees provided in a frontage landscape strip shall be credited toward the tree conservation requirements of this Article.

#### **Sec. 407. Parking lot plantings.**

Any parking lot designed or intended to accommodate 5 cars or more for any purpose, or to accommodate the parking of any number of light trucks or vans, which is located adjacent to any residential zoning district or located adjacent to a public street, must provide a buffer adjoining such zoning district and visual screening from such street in accordance with the requirements of this Division. Landscaped planting areas are also required throughout the parking lot under the requirements of this Division.

**(a) Landscape planting and maintenance plan required.**

A Landscape Planting and Maintenance Plan including provisions for watering, maintenance and replacements is to be submitted to the Planning Director and approved prior to the issuance of a building permit. Installation of plant materials shall have been completed or bonded prior to the issuance of a certificate of occupancy. If bonded, such plant materials shall be installed within 3 months of the bond date.

**(b) Parking lot buffers.**

Any parking lot designed or intended to accommodate 5 cars or more for any purpose, or to accommodate the parking of any number of light trucks or vans, which is located adjacent to any residential zoning district must provide a buffer as follows:

- (1) The buffer shall meet the minimum width for a zoning buffer as required under Sec. 403(b), unless waived or reduced under Sec. 405.
- (2) Parking lot buffers required adjacent to a residential use or zoning district shall meet the buffer standards of Sec. 403, and be maintained in accordance with Sec. 404.

**(c) Parking lot screening from street.**

For landscape strips adjacent to public streets or rights-of-way, plant materials shall consist of at least one shade tree (as defined in this Development Code) for each 25 linear feet of landscape strip and visual screening as provided below. For purposes of this section, such tree may be any shade tree native to this region which, when planted, has a minimum caliper of 2 inches.

- (1) Visual screening required.
  - a. Any parking lot designed or intended to accommodate 5 cars or more for any purpose, or to accommodate the parking of any number of light trucks or vans, which is visible from a street right-of-way, must provide a landscaped visual screen of the parking lot that meets the requirements of this Section. Truck loading areas shall be screened in accordance with the requirements of Sec. 408.
  - b. Decorative visual screening shall be provided to a height of 3 feet above the elevation of the parking area (measured at the edge or top of curb nearest the adjacent street) or 3 feet above the adjacent street (measured at the right-of-way line), whichever is highest.
  - c. The parking lot screening may be included within any frontage landscape strip required by this Development Code, but in no case shall be less than 10 feet wide.

(2) Screening alternatives.

The decorative visual screening may be provided in any of (or any combination of) the following ways that achieves a total height of 3 feet:

- a. *Planted only.* A hedge consisting of at least a single row of shrubs planted 3 feet on center that will spread into a continuous visual screen within 2 growing seasons. Shrubs must be at least 18 inches tall at the time of planting, be of a species that will normally exceed 3 feet in height at maturity, and be suitable for the parking lot application. The hedge must be set back at least 4 feet from the street right-of-way line.
- b. *Earthen berm.* An earthen berm shall not exceed a slope of 50% (1 foot of vertical rise for every 2 feet of horizontal run) and shall have a crown of at least 2 feet. The berm shall be planted in ground covers and other plant materials to achieve a decorative effect to a total height (berm plus plantings) of 3 feet.
- c. *Wall.* A wall of brick, stone or finished and textured concrete, landscaped with plant material to achieve a decorative effect to the reasonable satisfaction of the Planning Director. The wall must be set back at least 4 feet from the street right-of-way line.
- d. *Decorative fence.* A fence constructed of imitation-wood vinyl pickets, or of wrought iron with masonry columns, landscaped with plant material to achieve a decorative effect to the reasonable satisfaction of the Planning Director. "Open design" decorative fencing of wood or imitation-wood vinyl, such as split rail or slat fencing, are allowed with supplemental plantings to achieve the required screening effect. Fences must be set back at least 4 feet from the street right-of-way line.
- e. *Combination.* Any combination of hedge, berm, wall or fence that effectively provides a visual screen of the parking lot or loading area to a height of 3 feet and achieves a decorative effect through appropriate use of landscaping and plant material.

(d) **Parking lot internal planting areas.**

The following requirements apply to any parking lot designed or intended to accommodate 5 cars or more for residents, employees, customers or visitors. Parking lots designed and intended for the storage of vehicles owned by the business on site overnight (such as a company fleet), or maintains a stock of vehicles as part of its business activities (such as a car sales lot, a salvage and wrecking yard, car rental agency, etc.), are not subject to the requirements of this Sec. 407(d).

(1) Trees required.

At least one shade tree (as defined in this Development Code), occupying a planting space of at least 150 square feet each, shall be furnished for each 10 parking spaces in the parking lot.

- a. Trees must be placed in or around the parking lot such that every parking space is within 50 feet of a shade tree. The 50-foot distance is measured from the center of the tree to any point within the parking space.
- b. New trees shall have a caliper of no less than 2 inches and a height of no less than 8 feet upon planting, and shall be maintained in good condition. Trees that must be removed as a result of disease, damage or death, must be replaced.
- c. Trees provided as parking lot plantings shall be credited toward the tree conservation requirements of this Article.

(2) Standards for parking lot planting areas.

- a. Landscape islands, strips or other planting areas shall be located within the parking lot and shall constitute at least 8% of the entire area devoted to parking spaces, aisles and connecting driveways.

- b. Landscape islands, strips or other planting areas shall be landscaped with any combination of such plant materials as trees, shrubs, grass or ground cover, except for those areas that are mulched. Such planting areas shall be well drained and contain suitable soil and natural irrigation characteristics for the planting materials they contain.
- c. As a minimum, a landscaping island shall be located at the end of every parking bay between the last parking space and an adjacent travel aisle or driveway. The island shall extend the length of the parking bay and shall be no less than 8 feet wide for at least one-half the length of the adjacent parking space.
- d. Landscape islands between side-by-side parking spaces shall be no less than 8 feet in width and extend for at least one-half the length of the adjacent parking space. Landscaping strips between head-to-head parking spaces shall be no less than 8 feet in width without wheel stops, or 5 feet in width when provided with wheel stops in the parking spaces such that no vehicular overhang is permitted.

#### **Sec. 408. Screening of truck loading areas.**

The following applies to any designated truck loading and unloading area:

**(a) Truck loading area buffers.**

Any area designated for truck loading or unloading on a property that is located adjacent to a residence or residential zoning district must provide a buffer as follows:

- (1) The buffer shall meet the minimum width for a zoning buffer as required under Sec. 403(b), unless waived or reduced under Sec. 405.
- (2) Parking lot buffers required adjacent to a residential use or zoning district shall meet the buffer standards of Sec. 403, and be maintained in accordance with Sec. 404.

**(b) Truck loading area screening.**

For any designated truck loading or unloading area visible from or adjacent to a street, the following applies:

- (1) If the property across the street from the truck loading or unloading area is zoned as any R-numbered residential district, PD planned development or C-N neighborhood commercial, a visual screen shall be provided between the loading area and the street meeting the standards and all other requirements for a zoning buffer under Sec. 403, and be maintained in accordance with Sec. 404, unless the buffer is waived or reduced under Sec. 405.
- (2) If the property across the street from the truck loading or unloading area is not zoned as any R-numbered residential district, PD planned development or C-N neighborhood commercial, screening shall be provided meeting the same requirements as for a parking lot under Sec. 407(a) and Sec. 407(c).

#### **Sec. 409. Obstructions to sight distance.**

All landscaping and other screening devices placed along street rights-of-way and driveways must be designed and installed in a manner consistent with the requirements of this Development Code regarding visibility clearance.

#### **Sec. 410. Telecommunications Towers.**

- (1) Landscaping shall effectively screen the view of telecommunications facilities, equipment, equipment shelters or cabinets, associated buildings and fencing, where required, from adjacent public right-of-ways, public property and residential property.

- (2) Native vegetation and existing topography on the site shall be preserved or improved to the greatest practical extent. Disturbance of the existing topography shall only be permitted when, in the opinion of the Planning Director, it would result in less visual impact of the site to the surrounding area.
- (3) The Planning Director or Board of Commissioners may waive or modify the landscaping requirements where lesser requirements are desirable: for visibility or security purposes; for continued operation of existing bona fide agricultural or forest uses such as farms, nurseries and tree farms; other remote agricultural or rural locations; for placement of an antenna on an existing structure; or for developed heavy industrial areas.

**Sec. 411. Screening of trash storage containers.**

All exterior commercial trash storage containers shall be screened so that they are not visible from off the property, and a permanent masonry or frame enclosure shall be provided for each such bin. A detailed drawing of enclosure and screening methods to be used in connection with trash bins on the property shall be included with the site landscaping plan.

**Sec. 412. Screening of air conditioning units.**

In any office, commercial or industrial zoning district, ground based and roof mounted heating and air conditioning units shall be screened from view from any street or adjoining residential property.

**Sec. 413. Screening of stormwater detention ponds.**

Unless provided as a site amenity (such as a lake, lagoon or pond) designed with a permanent minimum pool elevation and provided with public access improvements such as walkways, patios or benches, a visual screen shall separate and screen all stormwater detention or retention facilities from view from any adjacent street and any adjoining or contiguous property, except for penetrations for required access. The visual screen shall comply with the following standards:

(a) **Minimum required screening.**

Minimum required screening shall achieve an opaque visual screen to a height of 4 feet using the materials listed below.

(b) **Materials.**

The visual screen may be formed through the retention of existing vegetation, the planting of new vegetation, the creation of a planted hedge, the construction of a fence or wall or earthen berm, or any combination of these approaches.

(1) Fencing or masonry walls.

Fences and masonry walls shall present a finished and decorative appearance. Shrubs, ground covers, or other vegetation shall be provided in front of the fence or wall so as to provide a decorative effect, following professional landscaping standards for spacing, location and design. Wooden and woven-wire fences shall not be used; vinyl materials that simulate wooden fences in appearance may be used.

(2) Planted materials or natural vegetation.

Any combination of existing and newly planted vegetation may be used that can reasonably be expected to create an opaque evergreen visual screen 4 feet high within two growing seasons.

(c) **Earthen berms.**

When using an earthen berm, the maximum side slope shall not exceed 50% (1 foot of vertical rise to 2 feet of horizontal run) with a minimum crown width of two feet. The berm shall be planted with ground cover, shrubs, trees or other landscaping materials to achieve a total screening height of 4 feet.

### **DIVISION 3. TREE CONSERVATION.**

#### **Sec. 414. Tree conservation; intent and findings.**

(a) **Intent.**

The intent of this Division is to provide standards for the protection of existing trees or the planting of new trees as part of the land development and building construction process within Camden County; to make the County an attractive place to live and to provide a healthy living and working environment; to better maintain control of storm water runoff, noise, glare, and soil erosion; and to preserve, protect, and promote the general health, welfare, and safety of the public.

(b) **Findings.**

- (1) Trees provide food and shelter for wildlife.
- (2) Trees reduce noise, glare and provide wind breaks.
- (3) Trees, through transpiration, purify the air.
- (4) Trees intercept airborne particulate matter and reduce some air pollutants.
- (5) Trees provide oxygen and reduce the level of carbon monoxide in the air.
- (6) Trees are vital in erosion control, soil conservation, and the reduction in stormwater runoff.
- (7) Trees moderate the climate.
- (8) Trees increase property value.
- (9) Trees provide aesthetic amenity.
- (10) Trees improve the quality of water.

#### **Sec. 415. Tree conservation definitions.**

*Agricultural Activities:* (See also "Tree Harvesting.") The production, keeping, or maintenance, for sale, lease, or personal use, of plants and animals useful to man, including but not limited to: forages and sod crops, grains and seed crops, dairy animals and dairy products, poultry and poultry products; livestock, including beef cattle, sheep, swine, horses, ponies, mules or goats or any mutations or hybrids thereof, including the breeding and grazing of any or all of such animals; bees and apiculture products; fur animals; trees and forest products; fruits of all kinds, including grapes, nuts and berries; vegetables; nursery, floral ornamental, and greenhouse products; or lands devoted to a soil conservation or forestry management program.

*Berm:* A mound of earth, or the act of pushing earth into a mound.

*Clearing:* The removal of vegetation from a property.

*Critical root zone (CRZ):* The drip line of a tree. (See the definition of "drip line").

*Development Site:* That portion of a tract of land that will be dedicated to a proposed development, including the land containing trees that will be counted toward satisfying the requirements of these provisions.

*Flowering Tree:* See Tree, Flowering . "

*Ground Cover:* A low growing plant, other than turf grass, which forms a continuous cover over the ground surface.

*Impermeable:* Something that water cannot pass through or be absorbed by, such as a layer of rock.

*Impervious Surface:* Man-made structures, improvements and surfaces that prevent or significantly limit the infiltration of stormwater. Examples of impervious structures and improvements are: buildings, structures, roads, driveways, parking lots, decks, swimming pools, patios and sidewalks. Examples of impervious materials often used to construct such improvements are asphalt, concrete, brick, stone, wood, asphalt shingles, metal, and composite materials. Porous asphalt and concrete pavement are considered impervious surfaces.

*Landscaping:* (1) An expanse of natural scenery; (2) the application of landscape materials through design to achieve an aesthetically pleasing arrangement.

*Net tree conservation area:* The total area of a development site exclusive of any acreage within a zoning buffer area, any primary conservation area and the “footprint” of all proposed or existing-to-be-retained principal buildings on the site.

*Overstory Tree:* See “Tree, Overstory.”

*Plant Materials:* Living plants, such as trees, shrubs, ground cover, grasses and perennial flowering plants, turf, and vines that are suitable for ornamental and/or functional use.

*Tree, Flowering:* An ornamental tree that is known for its blooms and generally mature at a height of less than 35 feet.

*Tree, Over Story:* Any deciduous or evergreen tree that has the potential to grow to a mature height of 35 feet or more (Reference *Landscape Plant Materials for Georgia*, Cooperative Extension Service, The University of Georgia College of Agriculture, Bulletin No. 625 or any similar publication.) Reference may also be made to the *Manual of Woody Landscape Plants* (Michael Dirr, 1983, Castle Books).

*Tree, Understory:* Any deciduous or evergreen tree that has the potential to grow to a mature height of less than 35 feet (Reference *Landscape Plant Materials for Georgia*, Cooperative Extension Service, The University of Georgia College of Agriculture, Bulletin No. 625 or any similar publication.) Reference may also be made to the *Manual of Woody Landscape Plants* (Michael Dirr, 1983, Castle Books).

*Tree Conservation Plan:* A plan that identifies tree protection areas, existing trees to be retained and proposed trees to be planted on a property to meet minimum requirements, as well as methods of tree preservation to be undertaken on the site and other pertinent information.

*Tree Density Standard:* The minimum number of Tree Units per acre that must be achieved on a property or parcel after development is completed.

*Tree Diameter:* See “Caliper” for newly planted trees and “Diameter Breast Height (DBH)” for existing trees.

*Tree Protection Area:* Any portion of a site wherein are located existing trees which are proposed to be retained in order to comply with the requirements of this Development Code. The Tree Protection Area shall include the total area beneath the tree canopy as defined by the critical root zone of the tree or group of trees collectively.

*Tree Unit Value:* The numerical credit assigned to a tree, based on the diameter of the tree, in accordance with the tables included in this Development Code.

*Turf:* Ground cover composed of one or more species of perennial grass that is grown as a permanent lawn.

*Understory Tree:* See “Tree, Understory.”

**Sec. 416. Tree conservation; where required.**

Tree conservation in accordance with the provisions of this Division shall be applied to every activity that requires the issuance of a land disturbance permit under this Development Code, except for activities otherwise exempted under this Section.

**(a) Application to new development or disturbed areas.**

The terms and provisions of this Development Code shall apply to any activity on real property within unincorporated Camden County, specified below:

- (1) All new office, commercial and industrial development and the expansion of an existing office, commercial or industrial development into undisturbed areas;
- (2) All new institutional and semi-public development and the expansion of an existing institutional or semi-public development into undisturbed areas;
- (3) All new mobile home parks and the expansion of an existing mobile home park into undisturbed areas;
- (4) All new single-family and two-family dwellings constructed on lots within a subdivision or any portion of a subdivision granted a development permit after January 1, 2009 under the provisions of this Development Code; [Amended April 21, 2009]
- (5) All new multi-family apartment developments for sale or lease and expansion of an existing apartment development into undisturbed areas; and
- (6) All new townhouse developments for sale or lease and expansion of an existing townhouse development into undisturbed areas.
- (7) Nonresidential and residential subdivisions.

New office, commercial and industrial subdivisions (and new residential subdivisions that are not exempt under Sec. 416(b)(1)) are subject to a two-staged review process by the Director of Planning (for the infrastructure and later for each individual lot). For this reason, these subdivisions may base tree density calculations on the net disturbed site area defined by the limits of clearance and construction. The phase 1 plan shall address the method and timing of ultimate compliance with this Division.

**(8) Nonresidential out-lots.**

Out-lots and separate parcels of a phased-unit development must collectively meet minimum requirements for tree density; however, in no case may an individual out-lot have fewer tree units per acre than the development as a whole.

**(9) Additions to Existing Projects.**

For additions to existing projects, the density requirements may be met in one of the following ways:

- a. Calculate the area of any new land disturbance and/or improvements and add replacement trees based on that area (existing trees elsewhere on the site may not be counted with this option); or,
  - b. Base density requirements on the total net tree conservation area and count any existing trees on the site (subject to the restrictions of the next Section).
- (10) Phased Projects and Reduced Net Site Areas.**
- a. Where development is going to occur in phases (by design or by implication), tree density calculations must be based on a site area defined by an established or estimated phase line.



- b. Similarly, a reduced net site area may be achieved by using only the area of actual site disturbance (new projects only), provided that a "limits of construction line" is clearly shown on the plan (existing trees elsewhere on the site may not be counted with this option).
- c. In both instances, the following criteria are applied regarding existing trees:
  - 1. Existing trees to be counted toward meeting the density requirements should be within the phase line or limits of construction.
  - 2. If the tree save areas must be established outside these areas, they must be located where future development will not impact them.
  - 3. The trees in areas outside the phase line or limits of construction may not be counted toward the tree density requirement of subsequent phases or new projects.

(b) **Exemptions from tree conservation requirements.**

The tree conservation requirements shall not apply to the following:

(1) Single-family or two-family residential subdivision.

The construction of a single-family or two-family subdivision is exempt, provided that land disturbing activities authorized by a development permit are limited to the minimum clearing, grubbing and grading necessary for construction of the proposed streets, utilities and stormwater management facilities, only. The clearing, grubbing and grading of an individual lot shall not commence until a building permit is issued for construction on the lot, and each such lot shall comply individually with the tree conservation requirements of this Division. If more extensive clearing and grading is proposed, the subdivision must comply with Sec. 416(c), or comply with all requirements of this tree Conservation Division for a land disturbance and construction permit, as applicable. [Amended April 21, 2009]

(2) Grandfathered development projects.

Any portion of a subdivision and the lots therein, any multi-family project and any nonresidential project issued a development permit prior to January 1, 2009 are exempt to the extent that compliance is maintained with the provisions of Article 1 of this Development Code relating to exemptions. [Amended April 21, 2009]

(3) Agricultural operations.

Property in use for agricultural tree harvesting (as defined by this Code) or other agricultural activities (as defined by this Code) are exempt, provided that all of the following are met: [Amended December 9, 2014]

- a. The property has been approved for a Preferred Agricultural Assessment or a Conservation Use Assessment by the Camden County Tax Commissioner.
- b. A contract for delivery of the trees between the tree harvesting company and a mill, pulp company or other end user is filed with the Planning Director.
- c. A contract between the tree harvesting company and the property owner is filed with the Planning Director.
  - 1. The contract must be substantially consistent with the model contract available from the Georgia Forestry Commission.
  - 2. The contract must require that the tree harvesting company undertake all best management practices of the Georgia Forestry Commission.
- d. The tree harvester must be certified as a Master Timber Harvester by the Georgia Forestry Commission, and must file a Xerox copy of his Master Timber Harvester card with the Planning Director prior to the start of the harvest.

## (4) Diseased trees.

Removal of diseased or infested trees, after verification by the Camden County Extension Agent or other qualified forestry professional acceptable to the Director of Planning, is exempt.

## (5) Utility construction.

Public utility companies and government agencies conducting operations on public and utility rights-of-way and easements or on sites for electric power substations and similar facilities, which operations are for the purpose of assuring uninterrupted utility and governmental services and unobstructed passage on public streets, are exempt.

## (6) Roadway construction.

Land clearing for designated roadway projects of the Georgia Department of Transportation and the Camden County Board of Commissioners is exempt.

(c) **Clearing and/or Grading only Permits.**

## (1) For multi-family and nonresidential projects:

- a. When seeking a development permit limited to clearing, clearing and grading, or grading only, it is only necessary for applicants to show compliance with the required tree density standard. [Amended April 21, 2009]
- b. If trees exist on the site, the required tree density standard should be met with those trees. If this cannot be done, new trees are required.
- c. A tree conservation plan must be a part of the approved clearing and/or grading plan unless documentation is submitted to the Planning Department indicating that an application for a full land disturbance permit will be made within 6 months of the grading plan approval date.

## (2) For a single-family or two-family subdivision, clearing and grading will be limited to those areas where streets, utilities and stormwater management facilities will be installed if the subdivision is exempt under the requirements of Sec. 416(b)(1) of this Development Code. If the subdivision is not exempt under Sec. 416(b)(1), a single-family or two-family subdivision must comply with Sec. 416(c)(1) for a clearing, clearing and grading, or grading only permit.

**Sec. 417. Calculation of “tree units.”**(a) **Use of tree units.**

The landscaping requirements of this Article with regard to the preservation or planting of trees is expressed in terms of “tree units” rather than the number of trees. This approach provides the developer with wide latitude of choice as to the number and sizes of trees to be retained or planted, and their distribution following aesthetic landscaping practices, while achieving a common standard on all properties.

(b) **Establishment of tree unit values.**

The diameter of a tree’s trunk establishes the “tree unit” value of a tree, as shown on

Table 4.2.

- (1) The tree unit values assigned for existing and new trees, as indicated in the table, are related to the diameter of the tree. One “unit” is not the same as one “tree.”
- (2) Actual tree diameters or calipers are to be rounded to the nearest whole number for the calculation of tree unit values (e.g., 4.4 inches in diameter = 4 inches; 4.5 inches in diameter = 5 inches).

Table 4.2: Tree Units for Existing and New Trees			
Tree Diameter in inches <sup>1</sup>	Tree Units	Tree Diameter in inches <sup>1</sup>	Tree Units
Seedlings	0.0	19	11.34
1	0.3	20	12.57
2	0.65	21	13.85
3	1.00	22	15.21
4	1.18	23	16.62
5	1.39	24	18.10
6	1.63	25	19.64
7	1.92	26	21.24
8	2.26	27	22.90
9	2.67	28	24.63
10	3.14	29	26.42
11	3.80	30	28.27
12	4.52	31	30.19
13	5.31	32	32.17
14	6.16	33	34.21
15	7.07	34	36.32
16	8.04	35	38.48
17	9.08	36	40.72
18	10.18	37 or greater	Use formula <sup>2</sup>
<sup>1</sup> At DBH for existing trees, and caliper for new trees to be planted. <sup>2</sup> The formula is: Pi times the diameter squared (in inches), divided by 100.			

(c) **Tree unit values for specimen trees or tree stands.**

(1) Specimen trees and specimen tree stands; defined.

*Specimen tree:* Any existing tree which qualifies for special consideration for preservation due to size, type and condition, as follows

- a. Any tree in fair or better condition which equals or exceeds the following diameter breast height (DBH) sizes:
  1. 20-inch DBH—Overstory trees such as oaks, southern magnolias, yellow poplars (tuliptrees), sweetgums, slash pines, etc.
  2. 4-inch DBH—Understory small trees such as dogwoods, redbuds, crape myrtles, etc.
- b. A tree in fair or better condition must meet the following minimum standards:
  1. A life expectancy of greater than 15 years.

2. A structurally sound trunk, not hollow and having no extensive decay, and less than 20 percent radial trunk dieback.
3. No more than one major and several minor dead limbs (hardwoods only).
4. No major insect or pathological problem.
- c. A lesser sized tree can be considered a specimen tree if it is a rare or unusual species, of exceptional or unique quality, or of historical significance, subject to recommendation by a qualified arborist, Master Forester or registered Landscape Architect, and approval of the Planning Director.
- d. A lesser size tree can be considered a specimen tree if it is specifically used by a builder, developer, or design professional as a focal point in a landscape project, subject to approval of the Planning Director.

*Specimen tree stand:* A contiguous grouping of trees which has been determined to be of high value in the opinion of the Planning Director. Determination is based upon the following criteria:

- a. A relatively mature, even-aged stand.
- b. A stand with purity of species composition or of a rare or unusual nature.
- c. A stand of historical significance.
- d. A stand with exceptional aesthetic quality.
- (2) The tree unit values shown on Table 4.2 may be increased by 50% for an existing tree that meets the definition of a "specimen tree" or for each tree in a "specimen tree stand" as defined herein, provided that extraordinary measures as needed are taken to protect the tree and assure its survival. Such measures may include but are not limited to the provision of tree wells, retaining walls, aeration, or supplementary irrigation, as applicable to the site of the tree and as approved by the Planning Director.

## **Sec. 418. Trees to be provided or retained.**

### **(a) Tree conservation plan required.**

- (1) A Tree Conservation Plan must be submitted along with the other required documents for the issuance of a land disturbance, construction or other applicable permit by the Planning Department. See the Procedures and Permits Article of this Development Code for plan requirements.
- (2) Tree Conservation Plans must be prepared by a professional Landscape Architect, Master Forester, Arborist, Registered Land Surveyor or Professional Engineer in accordance with the Procedures and Permits Article of this Development Code.
- (3) The Tree Conservation Plan shall comply with the *Community Planting and Establishment Guidelines* of the Georgia Forestry Commission, current edition, as applicable.

### **(b) Number of tree units upon completion of development.**

- (1) Qualified trees.

The following types of trees that exist on a property or are proposed for planting are qualified to be credited toward compliance with the tree conservation requirements of this Code.

- a. Existing trees.
  1. Any existing tree of 1-inch diameter or greater listed on Table 4.3: Approved Species List for Existing and Proposed New Trees, which will be retained on a property is qualified to be credited toward meeting the minimum tree density standard.

2. Evergreen over story trees that will be retained on a property, such as common china fir and slash pine, that are 6-inches or greater in diameter may be credited toward meeting the minimum tree density standard.
- b. New trees to be planted.  
Any new tree of 1-inch diameter or greater listed on Table 4.3, which will be planted on a property is qualified to be credited toward meeting the minimum tree density standard.
- (2) Minimum standards credited toward meeting the minimum tree density standard.
  - a. On each property subject to the requirements of this Tree Conservation Division, existing trees may be retained and new trees shall be planted so that the property shall attain or exceed the required tree density standard for the proposed use within the net tree conservation area of the property. The net tree conservation area of the development site shall be the total area exclusive of any acreage within a zoning buffer area (as required under this Article), any primary conservation area (as required under the Environmental Protection Article of this Code) and the “footprint” of all proposed or existing-to-be-retained principal buildings on the site. Existing tree retention, as opposed to tree clearing and replanting, is encouraged by this Development Code.
  - b. The minimum required tree density standard shall be as follows:
    1. Single-family or two-family residential lot—18 tree units per net acre.
    2. Multi-Family—18 tree units per net acre.
    3. Office/Commercial—20 tree units per net acre.
    4. Industrial—15 tree units per net acre.

(3) Proposed project's tree density calculation.

The proposed project's tree density shall be calculated by summing the tree units for trees to be planted and trees to be retained (including bonus units for specimen trees),<sup>1</sup> and dividing that number by the net tree conservation acreage of the project (total acreage excluding zoning buffer, primary conservation area and principal building “footprint”).

(c) **Specimen trees to be identified.**

Camden County strongly advocates the preservation of specimen trees. In order to encourage the preservation of specimen trees and the incorporation of these trees into the design of projects, the following shall apply:

- (1) All specimen trees as defined under Sec. 417(c)(1) shall be located on the grading plan or the landscaping, buffers and tree conservation plans, whether or not the trees are proposed to be retained.
- (2) Additional density credit will be given for specimen trees that are successfully saved by a design feature specifically designated for such purpose in accordance with Sec. 417(c)(2). Credit for any specimen tree thus saved would be 50% of the assigned unit value shown in Table 4.2, when using the extraordinary measures associated with protecting and assuring the survival of such trees, for a total tree unit value of 1.5 times the value shown on Table 4.2.

(d) **Standards for new trees.**

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<sup>1</sup> Trees planted to meet the frontage landscaping requirements of this Article under Sec. 406(c) and the parking lot landscaping requirements under Sec. 407(d)(1) may be counted toward the minimum tree density requirements of a development site. Trees planted to meet zoning buffer requirements of this Article under Division 1, parking lot buffers (Sec. 407(b)) or truck loading area buffers (Sec. 408(a) or Sec. 408(b)(1)) may not be counted as part of the tree density requirement.

- (1) Introduction.
  - a. The following section establishes standards by which plans and field conditions are to be evaluated to determine compliance with the tree replacement intent of this Development Code.
  - b. Tree replacement plans should be prepared with appropriate consideration given to the function of trees in the surrounding landscape. Every effort should be made to maximize the environmental benefit of the plant material.
- (2) Planting specifications.
  - a. Trees selected for planting must be free from injury, pests, disease, nutritional disorders or root defects, and must be of good vigor in order to assure a reasonable expectation of survivability.
  - b. Standards for transplanting shall be in keeping with those established in the International Society of Arboriculture publication *Tree and Shrub Transplanting Manual* or similar publication. Reference may also be made to the American Association of Nurserymen publication *American Standard for Nursery Stock* (ANS1260.1, 2004 or latest edition) for plant material quality specifications. Reference may also be made to the *Manual of Woody Landscape Plants* (Michael Dirr, 1983, Castle Books) or similar publication for information on tree species site requirements.
  - c. All balled and burlapped trees shall be dug with a mechanical tree spade in a wire basket with minimum 1-inch nylon strapping.
  - d. The permittee shall warrant the new trees and provide for the replacement of those that do not survive for a period or no less than 2 years.
- (3) Species.
  - a. Credit for proposed new trees will be awarded for trees that are listed in Table 4.3. Other deciduous overstory or understory tree species, and other evergreen understory tree species, will be approved based on the recommendation of a Georgia registered Landscape Architect or certified Master Forester or arborist.

<b>Table 4.3: Approved Species List for Existing and Proposed New Trees</b>		
<b>Overstory Trees</b>		<b>Understory Trees</b>
Green Ash	Sawtooth Oak	American Hornbeam
River Birch	Shumard Oak	Chaste Tree
Bald Cypress	Southern Red Oak	Carolina Laurel Cherry
Lacebark Elm	Water Oak	Flowering Crab
Red Maple	Willow Oak	Crepe Myrtle
Southern Sugar Maple	Pecan	American Holly
Southern Magnolia	Dawn Redwood	Lusterleaf Holly
Live Oak	American Sweetgum	Nellie Stevens Holly
	Tuliptree (Yellow Poplar)	Savannah Holly
		Saucer Magnolia
		Trident Maple
		Osage Orange
		Bradford Pear
		Golden Raintree
		Redbud

- b. Species selected for planting must be quality specimens, and must be ecologically compatible with the intended growing site. To insure diversity, a minimum of 4 species of tree is encouraged; sites requiring limited planting shall be evaluated by the Planning Director to allow use of fewer species.
- c. Where trees must be added to achieve the required tree units per acre for the site, pines may not comprise more than 30 percent of the required units. Where existing pines already comprise 30 percent or more of the required units, no more pines may be credited toward the required units.
- d. Trees shall only be awarded credit toward the required tree units on the site when situated in areas where they may grow to mature height without pruning.

(4) Irrigation.

Newly planted trees and existing trees subjected to construction impacts typically need supplemental watering when rainfall is inadequate. Applicants should be prepared to discuss how trees are to be watered during their establishment or transition period, and shall note on the plan the method of irrigation that is proposed and attendant facilities. For hand watering, for instance, the location of hose bibs must be indicated.

(5) Placement of trees.

New trees on a property shall be placed reasonably uniformly, subject to professional standards of design and in keeping with the layout of the development.

(6) Removal of support wires.

Tree support wires are to be removed within one year of planting.

**Sec. 419. Protection of existing trees.**

For existing trees that are proposed to be retained in order to meet the minimum requirements of this Code, the following provisions shall apply:

**(a) Damage prohibited.**

No person shall:

- (1) Cut, carve, or otherwise damage or remove any tree except in accordance with the provisions of this Development Code.
- (2) Attach any wire, nails, advertising posters, or other contrivance harmful to any tree.
- (3) Allow any gaseous, liquid, or solid substance that is harmful to trees (such as concrete washout, fuel, lubricants, herbicides, paint) to come in contact with them.
- (4) Set a fire or permit any fire to burn when such fire or the heat thereof will injure any portion of the tree.

**(b) Construction standards.**

- (1) Tree Protection Area.
  - a. The tree protection area shall include, as a minimum, the total area of the critical root zone (CRZ). All construction activities are prohibited within the tree protection area.
  - b. If encroachment into a tree protection area occurs which causes irreparable damage to the trees, the Tree Conservation Plan shall be revised by the permittee to compensate for the loss, and the revised plan must be acceptable to the Planning Director.
- (2) Location and types of tree protection devices.
  - a. Tree protection devices are to be installed as shown on the plan or otherwise completely surrounding the tree protection area.
  - b. The plan shall indicate whether the tree protection device is to be active or passive.
    1. Active protection is required where tree protection areas are located in proximity to construction activity.
    2. Active tree protection shall consist of chain link, orange laminated plastic, wooden post and rail fencing, or other equivalent restraining material.
  - c. The locations of all tree protection devices will be verified by inspection prior to the issuance of the construction permit for clearing and/or grading.
  - d. Once tree protection areas are established and approved, any changes are subject to Planning Department review.
- (3) Sequence of installation and removal.

All tree protection devices shall be installed prior to any clearing, grubbing or grading. The Planning Department must inspect the installation of tree protection and erosion and sedimentation control devices prior to the commencement of such activities. Tree protection must remain in functioning condition throughout all phases of development, but is to be removed prior to issuance of a Certificate of Occupancy.

- (4) Other specifications.
  - a. Clearing - Where clearing has been approved, trees shall be removed in a manner which does not adversely impact the trees to be preserved. Avoid felling trees into tree protection areas or disturbing roots inside the protection areas. Roots shall be cut cleanly before tree removal.



- b. Erosion and Sedimentation Control - All erosion and sedimentation control measures shall be installed in a manner which will not result in the accumulation of sediment in a tree protection area.
- c. Signage - All tree protection areas shall be designated as such with "Tree Protection Area" signs posted visibly on all sides of the fenced-in area at least every 100 feet. These signs are intended to inform subcontractors of the tree protection process. Such signs shall be a minimum of 16 square feet in sign face area and shall state with minimum three inch lettering "Tree Protection Area—No Construction or Equipment Encroachment."
- d. Signs requiring subcontractor cooperation and compliance with the tree protection standards shall be posted at site entrances during construction.

(c) **Prohibited activities.**

(1) **Compaction prohibited.**

All building materials, vehicles, construction equipment, dirt, debris, or other objects likely to cause soil compaction or above-ground damage shall be kept outside the tree protection area. Where a limited amount of encroachment is unavoidable, the tree protection area shall first be cut cleanly, then immediately mulched with a 4 inch layer of processed bark or wood chips or a 6 inch layer of straw.

(2) **Grade change prohibited.**

There shall be no raising or lowering of the ground level within the tree protection area. Stripping of topsoil in the tree protection area shall not be permitted. Where necessary, the use of moderate fill is permitted only with prior installation of an aeration system. Deposition of sediment in the tree protection area shall be prevented by placement of sediment barriers.

(3) **Ditches prohibited.**

No person shall excavate any ditch or trench within the tree protection area. Where such encroachment is unavoidable, ditches or trenches shall be so located as to minimize root damage. If roots must be cut, they must be cut cleanly and immediately mulched.

(4) **Paving prohibited.**

No person shall pave with concrete, asphalt, or other impervious material within the tree protection area.

## **DIVISION 4. LANDSCAPING PLANS, INSTALLATION AND MAINTENANCE.**

### **Sec. 420. Landscaping plans; when required.**

- (1) The provisions of this Section do not apply to structures for which site landscaping plans have been previously submitted and approved.
- (2) The provisions of this Section do not apply to landscaping of any kind that exceeds or is otherwise not required by the landscaping, buffer or tree conservation requirements of this Article.
- (3) Site landscaping, buffer and tree conservation plans are required upon application for a development permit or for a building permit for new construction of buildings in any development to which landscaping, buffer or tree conservation requirements apply.
- (4) Site landscaping and buffer plans shall be required for only that phase of development for which the development permit or building permit is being requested. Tree conservation plans shall cover the entire project.

- (5) In cases where approval of the landscaping plans would cause harmful delay to the start of construction, the Planning Director may issue footing and foundation permits for the project so that construction may proceed.
- (6) Permits for construction beyond the footing and foundation shall not be issued until the site landscaping plans have been submitted and approved.

**Sec. 421. Landscaping, buffer and tree conservation plan specifications.**

All proposed site landscaping and zoning buffers as required by this Development Code, and trees to be retained or planted as required by the tree conservation provisions of this Development Code, shall be illustrated on plans as described in Article 12 under the requirements for development plans. The plans may be consolidated as one plan if the information can be clearly shown.

**Sec. 422. Plant materials; standards.**

**(a) Acceptable plant materials.**

The following are the minimum plant sizes and conditions to be used in satisfying the requirements of this Article. Acceptable plant materials for landscaping, screening and zoning buffers shall be as approved by a Georgia registered Landscape Architect if so required by the Planning Director.

- (1) New plant materials.
  - a. Medium shrubs (those having a mature height of 4 feet or less), 18 x 24 inch balled and burlapped or 2-gallon container.
  - b. Large shrubs (those having a mature height greater than 4 feet), 24 x 30 inch balled and burlapped or 3-gallon container.
  - c. Ground cover, 2½ inch pot.
  - d. Trees, minimum 2-inch caliper (or as required for specific applications under this Article).
- (2) The *American Standard for Nursery Stock*, published by the American Association for Nurserymen, may be referred to for the determination of plant standards.

**(b) Approval of plant materials.**

Approval of a proposal to use a specific landscaping or buffer material shall be subject to a determination by the Planning Director that the proposed material is the most appropriate for:

- (1) The specific location, given surrounding land uses and the type of screening used on nearby properties, and
- (2) The specific topography, soil, existing vegetation, and other factors that may influence the effectiveness of a screen material.

**Sec. 423. Installation and maintenance of plant materials.**

**(a) Installation of plant materials.**

- (1) Plant materials, as required by the provisions of this Article, shall be installed prior to issuance of a Certificate of Occupancy. The Planning Director may allow one planting season in a twelve-month period in which the installation of plant materials shall be completed, subject to the performance security requirements, below.
- (2) Performance surety.

- a. In such cases as when planting stock availability is low or weather conditions are not appropriate for planting new trees, the project owner may postpone planting for up to 3 months; provided that performance security is posted with Camden County in accordance with the following criteria:
    - 1. Security shall be in cash held in escrow or an irrevocable letter of credit submitted to the Planning Director, with the appropriate documentation.
    - 2. Security shall be provided in an amount equal to 110 percent of the cost of materials, installation and 2-year guarantee as demonstrated by a signed contract between the owner and a qualified landscape contractor, and as approved by the Planning Director.
  - b. An inspection shall be made by the Planning Department of all tree plantings to assure compliance with plan requirements prior to release of the performance security. The performance security will be drawn upon by Camden County at the time of expiration if the planting requirements have not been fulfilled, or if the owner has not requested an extension. One 3-month extension may be permitted with documented justification acceptable to the Planning Director. Any inspections performed after the final inspection (for project release) are subject to re-inspection fee schedules.
- (3) Maintenance bond.
- a. Prior to issuance of a certificate of occupancy, or prior to release of a performance surety provided under this Section (whichever last occurs), a maintenance bond, letter of credit or escrow account in a form acceptable to the Planning Director is required for all plant materials installed as a result of the requirements of this Article. The developer shall be responsible for maintenance of all such plant materials for 2 years from the date of acceptance of the maintenance bond.
  - b. The value of the Maintenance Bond shall be equal to 25 percent of the actual cost of installation of the plant materials. The cost of installation shall be evidenced by copies of contractor agreements or actual invoices paid, or as otherwise determined by the Planning Director in accordance with generally established costs for the industry.
- (b) **Maintenance of required plant materials.**
- (1) The owner, tenant and their agent, if any, and their successors and assigns shall be jointly and severally responsible for the maintenance in good condition of the plant materials used to meet the minimum landscaping and buffer requirements of this Article. This responsibility is in addition to and survives the release of any maintenance bond provided for the property by the developer.
  - (2) Plants that are diseased, unsurvivably damaged or are dead shall be removed and replaced with a plant of the same species, variety or cultivar, as acceptable to the Planning Director.
  - (3) Other landscape materials shall be maintained in proper repair and shall be kept clear of refuse and debris.

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